MEMORANDUM | September 1, 2015

TO Craig O'Connor, NOAA

FROM Michael Welsh

SUBJECT I10 - Media Tracking and Public Awareness

OVERVIEW

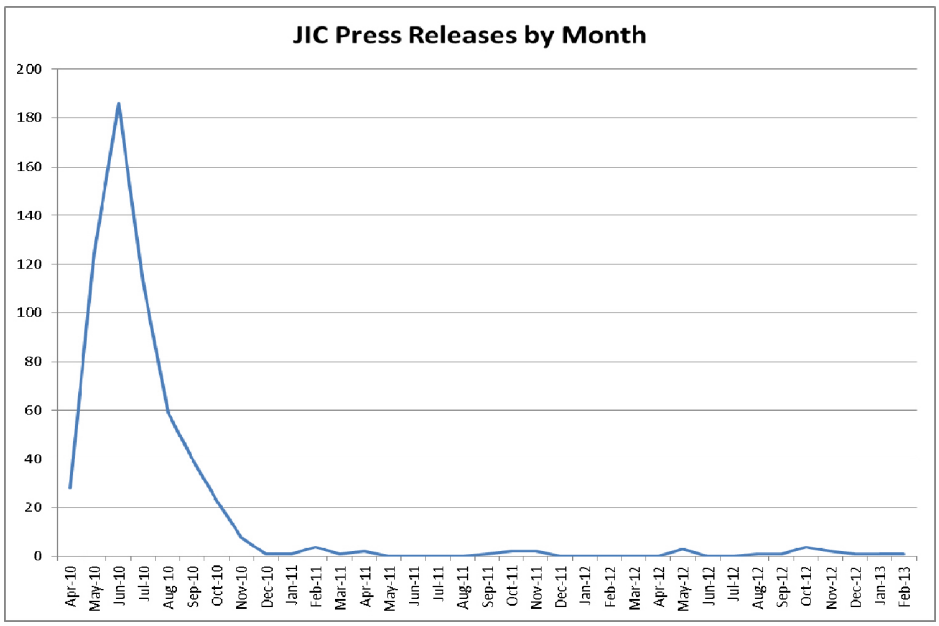
As a result of the oil spill that began in April 2010, experts contracted by the National Oceanic and Atmospheric Administration (NOAA) initiated an assessment of the extent and value of the lost human uses that might occur from injuries to natural resources. As part of this effort, the study team reviewed media sources through which members of the public might have obtained information about the spill. In this technical memo, we summarize these media sources and indicators of public awareness of the spill.

MEDIA COVERAGE OF THE SPILL

At least some members of the public became aware of the spill through direct, personal experience. This could include observation of shoreline oiling, beach closures, fishing closures, and cleanup workers/activities. For many others, awareness of the spill likely resulted from extensive media coverage of the spill. This media coverage occurred through a variety of channels/sources.

JOINT INFORMATION CENTER

From the beginning of the spill, The Coast Guard Joint Information Center (JIC) issued press releases on a regular basis. From April 21, 2010 through February 2013, the JIC issued more than 600 press releases covering several aspects of the oil spill. The majority of Joint Information Center press releases were issued in the six months following the spill.



WEB BASED MEDIA

The Coast Guard also maintained a web site, www.restorethegulf.gov, that provided information about the oil spill. This website included links to the following:

- news items about the spill
- NOAA's Environmental Response Management Application (ERMA) site, which included maps and data showing the current status of the spill
- assistance resources for those affected by the spill.

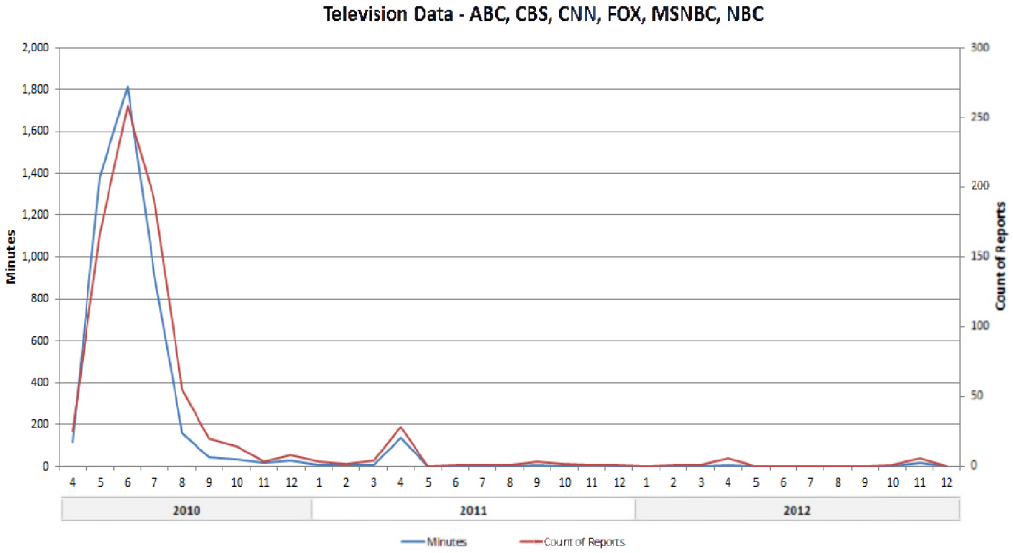
BP also regularly featured information about the oil spill on its corporate website at www.bp.com – including links to press releases from the Joint Information center.

COMMERCIAL PRINT MEDIA

The oil spill was the subject of news coverage by many commercial print media outlets. The study team periodically visited websites for newspapers in the Gulf region and across the US and collected articles that they published about the spill. Between April 2010 and December 2012, we identified 2,012 articles published on the NOLA.com website, which is the website associated with the Times Picayune newspaper in New Orleans. Over the same period we identified 973 articles referring to the oil spill that were published in the Miami Herald. Print media outside of the Gulf area also published many articles related to the oil spill. From April 2010 through the end of 2010, the New York Times published 538 such articles, the Chicago Tribune published 537 articles related to the spill, and the Los Angeles Times published 590 articles. Across all of these sources the majority of the articles related to the spill were published in 2010.

TELEVISION COVERAGE

Vanderbilt University maintains a database documenting the counts of news segments, the minutes of coverage and key words associated with each segment. The study team checked this database to determine how many news segments aired by major television networks covered the oil spill. From April 2010 through the end of 2012, six major television networks aired a total of 802 such segments. The air time for these segments was nearly 69 hours of coverage. The vast majority of these segments aired in 2010.



In May of 2010 several media sources documented the possibility that oil from the spill could come ashore on the peninsula of Florida - including the Florida Keys. Newspaper articles on the spill indicated that this was a possibility beginning in early May 2010. By the second half of May, forecasts of offshore spill trajectories made by NOAA were posted on the ERMA Deepwater Gulf Response website.

On May 10, the Denver Post published an article with the headline "As Gulf slick spreads, fears grow of it moving to Atlantic". Part of this article read:

> The Deepwater Horizon well is at the end of one branch of the Gulf Stream, the famed warm-water current that flows from the Gulf of Mexico to the North Atlantic. Several experts said that if the oil enters the stream, it would flow around the southern tip of Florida and up the eastern seaboard.
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> "It will be on the East Coast of Florida in almost no time," Graber said. "I don't think we can prevent that. It's more of a question of when rather than if."

On May 16 ABC News posted an article on their website stating:

> Researchers tracking the spill say computer models show the black ooze may have already entered a major current flowing toward the Florida Keys, and are sending out a research vessel to learn more.
>
> William Hogarth, dean of the University of South Florida's College of Marine Science, told The Associated Press Sunday that one model shows that the oil has already [reached] the loop current, which is the largest in the Gulf. Hogarth said a second model shows the oil is 3 miles from the current — still dangerously close. The current also loops around to the East Coast.

On May 17, 2010 an article in the New York Times reported:

> Scientists warned Monday that oil from the spill in the Gulf of Mexico was moving rapidly toward a current that could carry it into the Florida Keys and the Atlantic Ocean, threatening coral reefs and hundreds of miles of additional shoreline.

On May 17 the Miami Herald also published an article reporting:

> Satellite images taken Saturday by NASA's Jet Propulsion Laboratory show that the oil may have already entered the Gulf loop current, which could pull it through the Florida Keys and into South Florida, according to an analysis by Mitch Roffer, a Florida-based oceanographer who runs Roffer's Ocean Fishing Forecasting Service and has tracked the spill.

The May 19, Offshore Surface Oil Forecast[1] prepared by NOAA stated:

> This map shows the predicted location of oil that has potentially entered the loop current.
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> A portion of the oil (numerous scattered light sheens with some emulsified patties and streamers) has been observed moving to the southeast over the last few days. Most of this oil appears to be being entrained into a large counterclockwise rotating eddy and moving back to the north or northwest. The northern boundary of the Loop Current (LC) is to the south of this eddy, and scattered sheens have been observed on the boundary between the eddy and the LC. In this region, surface currents bifurcate and models predict some of the oil in this region will continue to be entrained in the northern eddy, whereas some of this oil may also become entrained into the LC.

AWARENESS OF THE OIL SPILL

The large number of channels through which oil spill news was available and the large number of press releases, news items and website coverage led to a high awareness of the oil spill among the public. Several indicators of the public's awareness of the spill are outlined below.

Beginning in late May of 2010 the House Select Committee for Energy Independence and Global Warming arranged to post a live feed of the oil spill. The widespread viewership of this feed indicates a heightened awareness of the spill among the public. According to an item posted by CNN on the first anniversary of the events leading to the spill.[2]

[1] http://response.restoration.noaa.gov/sites/default/files/O-Shore24_2010-05-19_1800.pdf

[2] http://www.cnn.com/2011/POLITICS/04/20/markey.bp/

> Within 24 hours a million people had seen it. The demand was so high, it not only crashed the committee's website but the huge volume also temporarily crashed the House of Representative's Web system.
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> "Spillcam" was a game-changer. "Once they saw it, once they could understand the damage that it was doing to the environment and to the livelihoods of the people in the Gulf of Mexico, that's when the spillcam became something that changed the whole course of the way in which the government and BP was responding to this disaster," Markey says.
>
> The video eventually was viewed by many more millions around the world as CNN and other networks broadcast the images.

A news article in the Miami Herald on June 16, 2010 also mentioned public awareness of the "spill cam":

> It's nearly impossible to avoid the live video of the coal-gray oil gushing from BP's well a mile below the Gulf of Mexico's surface. According to an Associated Press-GfK Poll this week, 88 percent of the public has viewed it. The video is a daily reminder that two months after the oil rig explosion that killed 11 and caused the massive leak and resulting environmental and economic damage, BP still hasn't plugged the well.

The Pew Research Center monitors news stories followed by the US public. In 2010 they reported that in late July 59% of the US public "...said they were following news very closely about the major oil leak in the Gulf that started with a deadly explosion on an oil rig." They also reported that the oil spill was the #1 most closely followed news item in 18 of the 20 weeks from the end of April 2010 through the third week in August 2010. [3] Other topics reported as most closely followed included "Healthcare" at 8 weeks, "Economy" at 8 weeks, and the "Haiti Earth Quake" at 5 weeks.

We also found nearly universal awareness of the oil spill among respondents to both the Local Coastal Activity Survey and the National Coastal Activity Survey. The Local Coastal Activity Survey (Technical Memo I1) obtained information from 1,981 survey respondents who reported having taken a trip to the Gulf Coast at some point in the (approximate) three-year period prior to the date of the interview. Just over 99% of the respondents mentioned being aware of the oil spill. Respondents in the Local Coastal Activity Survey were also asked whether there were any places they had either stopped going to or visited less often because of the spill. Approximately 26% of the sample reported having done so. When weighted to the population from which the sample was drawn, this represents about 2.5 million individuals. Of the subset of respondents who did take trips to the Gulf, 10% said that the oil spill had affected their activities during at least one of their trips to the Gulf. Extrapolated to the relevant population this represents about

[3] http://www.people-press.org/2010/12/21/top-stories-of-2010-haiti-earthquake-gulf-oil-spill/

1.2 million people reporting that the spill affected their activities during trips they took to the Gulf

The National Coastal Activity Survey (Technical Memo I2) was conducted with 2,077 respondents who reported having engaged in coastal recreation along the Gulf Coast at some point in the approximate three-year period prior to the date of the interview. Just over 99% of the respondents mentioned being aware of the oil spill. Respondents in the National Coastal Activity Survey were also asked whether they had canceled a trip to the Gulf as a result of the spill. Approximately 10% of the sample reported having done so. When weighted to the population from which the sample was drawn, this represents about 2.3 million individuals.

Finally we found a very high awareness of the oil spill among recreators interviewed during the infield surveys.[4] During the first 12 months of the study, awareness of the oil spill exceeded 99% in each month. In the second 12 months of the study awareness of the spill exceeded 98% in each month and in the final 12 months of the study, awareness also exceeded 98% in each month. Across the entire study period awareness of the spill exceeded 99%. So, for a period of three years after the oil spill virtually all general beach recreators reported being aware of the spill. Similar patterns of awareness were observed for shore anglers and for boaters.

Across all three types of recreators interviewed during the infield study, many respondents reported the spill had affected the location they chose, the activities in which they engaged, or their enjoyment of the site visited. The pattern of response was similar for all three types of recreation examined across the study period. Typically, the percentage of respondents reporting these types of impacts were highest in the North Gulf (the area ranging west from about Apalachicola, FL to the Louisiana/Texas border) and highest in the summer of 2010. For example, in July, 2010 in the North Gulf, about 24% of general shoreline recreators reported that the spill had affected the location they visited, the activities in which they chose to engage, or their enjoyment of the site they visited. This percentage fell to about 10% in September 2010 and remained in the 0.3% to 7% range for the rest of the study period.

[4] See Technical Memo BA-1b - Shoreline Protocols for Counts and Interviews; Technical Memo BA-2b - Shore Fishing Protocols for Counts and Interviews; and Technical Memo BA-3b - Boating Protocols for Counts and Interviews.